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TESTIMONY of
ROBERT K. BRADEN
Before the
COMMITTEE on TRANSPORTATION and INFRASTRUCTUE
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Mr. Chairman and members of the Committee. My name is Robert K. Braden. I have been an Engineer and Engineering Manager for over 40 years, including nearly 30 years service with Lockheed Martin and predecessors, Martin Marietta, RCA, and GE.

My experience encompasses development of naval, air, space, and land-based advanced technology systems for the Department of Defense. I also have over a decade of commercial computer and communication experience including large-scale systems development, high volume computer system production, and Product Management of a line of secure terminals for classified customers. I am currently employed by Lockheed Martin Corporation (LMCO) as Senior Technical Staff for the Processor and Digital System Design Center at Moorestown, New Jersey. In my management staff position, I am often expected to provide program and project leadership for a variety of contracts and internal R&D programs.

In early 2003, I was requested to join the US Coast Guard (USCG) Deepwater program as Lead System Engineer (LSE) for the Communications Area Master Stations (CAMS) & Legacy Cutter program. The objective of this program was to provide enhanced satellite communications and C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance) systems for existing legacy Coast Guard (CG) assets. The CAMS/Legacy program included upgrades to both Atlantic and Pacific Coast CAMS locations (CAMSLANT and CAMSPAC). A major portion of this program included installation of upgrades and new capabilities for approximately 39 existing Coast Guard 210 foot, 270 foot, and 378 foot Legacy Cutters. These upgrades provided significantly improved satellite bandwidth for both land and ship assets, improved shipboard network infrastructure, expanded Secret communications capabilities, new capabilities for Automatic Identification Systems (AIS), and new law-marine radio equipment. The planned installations added 8-12 additional secure workstations for Officer and Crew access to the NAVY SIPRNET (Secret Internet Protocol Router Network). These improved SIPRNET links would provide the Legacy fleet with the ability to significantly improve coordination of law enforcement and Homeland Security actions with the US Navy and within the CG.

As LSE, my tasks included development of program plans, cost and manpower estimates, system design, equipment and software selection, selection of subcontractors, support of contract and subcontract negotiations, system implementation, integration and test, and physical installation and sell-off of the CAMS and Legacy assets. After completing a total re-plan of the program with my original Moorestown Program Manager, Mr. Tom Guerrasio, we submitted an aggressive, fixed-price proposal to the Coast Guard through the ICGS SIPO organization. Unfortunately, the CG Contracts office continued to extend negotiations to the end of the fiscal year, requiring LMCO to either stop work or independently fund the continued engineering and procurement of long lead material. Admirably, LMCO elected to support the aggressive Deepwater deployment objectives of Admiral Patrick Stillman, and provided several million dollars of internal "Risk Funding" to allow my team to obtain material, integrate the system, and prepare for the first installation of the CAMSLANT facility and the CG 270 foot Cutter, Northland. This was a full 2 to 3 months prior to the CG Contracts Office approving the contract funding.

During this period I was engaged in intensive dialog with my CG Contracts Technical Representative (COTR), John Harris, with the CG ships integration personnel, and with the CG Telecommunications Security organization, TISCOM. The purpose of this dialog was to determine and negotiate all requirements for the CAMS/Legacy system installations and to support Certification and Accreditation (C&A) of the Secret SIPRNET communications. Our objective was to provide secure communications installations that could immediately achieve an Interim Authority To Operate (IATO) followed shortly thereafter with a full Authority To Operate (ATO).

From the onset of my involvement with the Deepwater program, I was engaged in weekly Program Integration Team, or PIT, meetings involving all management of the Deepwater program within Moorestown. These mandatory weekly meetings covered all aspects of the program and included USCG representative(s) and generally included representatives from the Systems Integration Program Office (SIPO) of the Integrated Coast Guard Systems organization (ICGS). During these meetings, all asset program issues and status were discussed. Topics regularly included status of the Systems-of-Systems activities, the CAMS/Legacy Cutter Upgrades, the 123 foot Cutter conversion program, and the Air Assets Upgrades. The purposes of these lengthy and wide-ranging meetings were to ensure coordination of various programs and maintain commonality among assets. Approximately once each month, the PIT meeting would expand to a full Deepwater program review with CG and ICGS management in attendance. On numerous occasions, I presented the design, installation, and security briefings to this audience to ensure concurrence with our CAMS/Legacy plans.

As a result of the PIT meetings and other internal reviews, asset LSE's would become aware of problems and issues faced by their counterparts. We would occasionally 'compare notes' to determine if a common resolution was possible. On a number of occasions, I provided explicit definition of the design, process, and operational approaches utilized by my team to achieve compliance to our CAMS/Legacy asset requirements. Likewise, I received advice from other LSE's.

Unfortunately, the aggressive pace of my own project and the structure of the Deepwater program often required that my team maintain focus on the successful resolution of our design issues. When I was unable to influence changes I felt may be needed, I would normally advise management. In every instance, I endeavored to convey the decisions made by my team to achieve requirements compliance and share the CAMS/Legacy design techniques for the benefit of the entire Deepwater program.

In late August 2003, my team began upgrade of the CAMSLANT facility and installation of the first Deepwater sea-based asset, the CGC Northland. We completed these installations within one month, thereby establishing the milestone of the first successful asset delivery to the USGC Deepwater program. We followed this achievement with the successful installation of the Deepwater C4ISR suite aboard the CGC Tampa by year-end. The subsequent string of successful installations has been a continuing source of personal satisfaction for my original design and installation team personnel. I personally take pride in expeditiously and cost-effectively completing the first successful and compliant Deepwater installations in the history of the program. I continued to manage and guide the installation of the first nine 270 foot cutters, and developed the design and installation procedures for the remaining 210 foot and 378 foot cutters. In March 2004, I was removed from the Deepwater program.